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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/598,984	06/21/2000	Besma Kraiem	450117-02628	6533

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EXAMINER

LY, NGHI H

ART UNIT	PAPER NUMBER
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2682

DATE MAILED: 02/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/598,984

Applicant(s)

KRAIEM ET AL. 

Examiner

Nghi H. Ly

Art Unit

2682

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-14 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Wellard et al (US 5,862,477).

Regarding claims 1, 13 and 18, Wellard teaches method to create a topology map indicating the quality of connectivity of each network device of a wireless network with all other network devices in the wireless network (see abstract), characterized by the following step: performing a measurement phase in which a calibration signal is successively broadcasted by each network device (see fig.2) and in which all respective other network devices receiving the calibration signal measure the received signal quality (see column 3 lines 14-30) and performing a reporting phase in which the measurement results are transmitted from each network device to the network device creating the topology map, and performing a creating phase in which the topology map of the network is created within the network device creating the topology map on basis of all received measurement results (also see column 3 lines 14-30).

Regarding claim 2, Wellard further teaches the calibration signal is transmitted in a dedicated control channel (see column 4 lines 52-57).

Regarding claim 3, Wellard further teaches the measurement results are reported in a respective dedicated control channel (see column 4 lines 52-57).

Regarding claim 4, Wellard further teaches the calibration signal is transmitted with the maximum allowed transmit power level (see column 6 lines 29-33).

Regarding claim 5, Wellard further teaches the topology map is updated when a new network device joins the network (see column 8 line 58 to column 9 line 3).

Regarding claim 7, Wellard further teaches topology map is stored in the central controller (see column 3 lines 60-65).

Regarding claim 8, Wellard further teaches topology map is broadcasted in the whole network (see fig.2).

Regarding claim 9, Wellard further teaches only the parts of the topology map related to a specific network device are transmitted to specific network device (see column 5 lines 46-52).

Regarding claim 11, Wellard further teaches the contents of the topology map are codes that are mapped to receive power values (see column 3 lines 25-28).

Regarding claim 12, Wellard further teaches the measurement phase and/or reporting phase is initiated by the network device creating the topology map (see column 3 lines 14-28).

Regarding claim 14, Wellard further teaches characterized in that the functions are performed on demand of another network device or on an internal demand (see column 3 lines 14-30).

3. Claims 13-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Feng (US 5,374,936).

Regarding claim 13, Feng teaches network device for a wireless network (see fig.2), characterized by means to broadcast a calibration signal (see column 1 line 65 to column 2 line 2), to measure a power level of a received calibration signal (see column 2 lines 18-21), and to transmit its measurement results to another network device (see column 2 lines 21-26).

Regarding claim 14, Feng further teaches characterized in that the functions are performed on demand of another network device or on an internal demand (see abstract).

Regarding claim 15, Feng further teaches characterized by a calibration decoder (see fig.3 box 28 and box 32) that initiates the broadcast of a calibration signal and the measurement of the reception quality of one or more incoming calibration signals upon reception of a measurement control signal (see column 2 lines 18-21).

Regarding claim 16, Feng further teaches characterized in that the calibration decoder (see fig.3 box 28 and box 32) initiates the transmission of one or more measurement results upon reception of a reporting control signal (see column 2 lines 18-21 and see fig.2 multiple arrows or multiple output or input from each device).

Regarding claim 17, Feng further teaches characterized by a report encoder (see fig.3 box 28 and box 32) that receives one or more signal quality indication signals and encodes therefrom a signal quality control signal to be transmitted to the other network device (see fig.2 multiple arrows or multiple output or input from each device).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wellard et al (US 5,862,477) in view of Pelech et al (US 6,243,585).

Regarding claim 6, Wellard teaches the method according to claim 1. Wellard does not specifically disclose the topology map is updated after a predetermined amount of time. Pelech teaches the topology map is updated after a predetermined amount of time (see column 10 lines 10-19). Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to provide the above teaching of Pelech to the system of Wellard so that there is little or no interruption in service to the wireless terminals (see column 10 lines 16-19).

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wellard et al (US 5,862,477) in view of Jennings,III (US 6,173,191).

Regarding claim 10, Weelard teaches the method according to claim 1. Wellard does not specifically disclose the calibration signal is transmitted using an omni-directional antenna. Jennings teaches the calibration signal is transmitted using an omni-directional antenna (see Column 3 lines 65-67 and see column 14 lines 13-16). Therefore, it would have been obvious to one of the ordinary skill in the art at the time the invention was made to provide the above teaching of Jennings into the system of Wellard in order to transmit the calibration signal in all direction.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

a. O'Donnel (US 6,266,514) teaches poor network coverage mapping.

b. Ayanoglu (US 5,822,309) teaches signaling and control architecture for and AD-HOC ATM LAN.

c. Schroderus (US 5,822,682) teaches communicating on a direct mode.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nghi H. Ly whose telephone number is (703) 605-5164. The examiner can normally be reached on 8:30 am-5:30 pm Monday-Friday.

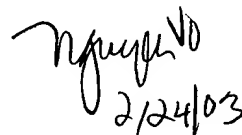
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on (703) 308-6739. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Nghi H. Ly



February 24, 2003



NGUYENT.VO
PRIMARY EXAMINER